## Fall 2018 Levee Maintenance Deficiency Summary Report

Overall LMA & Unit Ratings, including DWR Erosion Survey

## San Joaquin River Basin

RD0001	Overall LMA Rating	Total LMA Miles						
Reclamation District No. 0001 Union Island	U	1.14	_					
	0		nce Deficiency		Enforc	ement	Design 8 Obsole	System
Rated Item	M Miles	U Miles	M + 4U Miles	Threshold %	M Miles	U Miles	M Miles	
Earthen Levee	1		1					
Vegetation		2.28	9.12	801.36%				
Trim / Thin Trees	0.02		0.02	1.76%				
Encroachments						0.01		
Animal Control		0.04	0.16	14.06%				
Slope Stability	0.02		0.02	1.76%				
Erosion / Bank Caving	0.02		0.02	1.76%				
Flood Preparedness & Training	0.01		0.01	0.88%				
Supplemental								
DWR UCIP Field Study					0.02			
2017 Storm Damage	0.02		0.02	1.76%				
LMA Totals:	0.09	2.32	9.37	823.33%	0.02	0.01	0.00	0.00
Unit No. 01 Old River RB	Overall Unit Rating	Total Unit Miles						
RD0001	U	1.14						
D		Maintena	nce Deficiency		Enforc	ement	Design 8 Obsole	& System scence
Rated Item	M Miles	U Miles	M + 4U Miles	Threshold %	M Miles	U Miles	M Miles	
Earthen Levee								
Vegetation		2.28	9.12	801.36%				
Trim / Thin Trees	0.02		0.02	1.76%				
Encroachments						0.01		
Animal Control		0.04	0.16	14.06%				
Slope Stability	0.02		0.02	1.76%				
Erosion / Bank Caving	0.02		0.02	1.76%				
Supplemental								
DWR UCIP Field Study					0.02			
2017 Storm Damage	0.02		0.02	1.76%				
Unit Totals:	0.08	2.32	9.36	822.45%	0.02	0.01	0.00	0.00

## **LMA District Cover Sheet**

Fall 2018 Levee Inspection Results

## **Reclamation District No. 0001 Union Island**

	Spring (March - May)	Summer ** (June - August)	Fall (September - November)	Winter ** (December - February)				
† Overall LMA Rating (Fall Only)								
	** Non-receipt of Summ Reports may effect or							
SPRING INSPECTIONS: Overall maintenance ratings are not determined for the spring inspection results. Individual maintenance deficiencies are rated using the same criteria in the spring and in the fall.  FALL INSPECTIONS: The overall maintenance rating shown above is based on operation and maintenance deficiencies identified within the attached unit inspection reports. This rating is not intended to be an indiction of risk.								
Comments								

#### **Unit Cover Sheet**

Fall 2018 Levee Inspection Results

## Reclamation District No. 0001 Union Island

Waterway	Bank	Unit Miles
Unit No. 01 Old River	Right	1.14

	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)			U	
Date of Inspection	5/17/2018 - 5/17/2018		10/9/2018 - 10/9/2018	
DWR Inspector	Richard Willoughby		Richard Willoughby	
Accompanied By				

#### Summer & Winter Inspections

The Local Maintaining Agency (LMA) is responsible for summer and winter inspections. The LMA is required to submit a report regarding summer and winter inspections to the California Department of Water Resources (DWR).

DWR must be informed on the:

- a) completion of the inspection
- b) any changes other than the results of normal maintenance
- c) corrections to deficiencies noted in this report

If additional items are noted, further documentation of those items must also be submitted.

The LMA should submit this information to DWR using the LMA web application tool available at:

#### http://cdec.water.ca.gov/lma.html

If the LMA is unable to submit information on this webpage, please contact DWR for assistance.

The LMA should submit the information and any associated documentation by September 30 for summer inspections and March 31 for winter inspections.

## **Levee Inspection Report By Mile - Fall 2018**

## **Reclamation District No. 0001 Union Island**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.14	10/09/2018 10/09/2018	Richard Willoughby

LM Start		Rating **	М	Issue No.		6		
LM End		Issue Type +	Ма	Location *		N/A		
Category	Earthen Levee GPS Latitude/Longitude							
Calegory				Start		End		
Item	Flood Pre	paredness &	Training		0		0	
item					0		0	
DWR ID	DWR_RD0	001_01_s _ 201	3_6					
		Comn	nent Coc	le				
				,				
		Inspecto	or Comm	ent				
The LMA has not attended a flood fight training class in the past few years. They do have an emergency plan.								

No Photos

LM Start		Rating **	Α	Issue No.		8	
LM End		Issue Type +	Ma	Location *		N/A	
Category	Earthen L	hen Levee		GPS Latitude/Long		le/Longitude	
Calegory				Start		End	
Item		y Supplies &			0		c
пеш	Equipmen	nt			0		c
DWR ID	DWR_RD0	001_01_s _ 201	3_8				
		Comn	nent Coc	lo.			

No Photos

Inspector Comment The LMA has emergency supplies on-site.

LM Start		Rating **	Α	Issue No.		9		
LM End		Issue Type +	Ma	Location * N/A				
Category	Earthen L	evee	GPS La	atitud	e/Longitude			
Calegory				Start		End		
Item		s & Maintena	nce		0		0	
пеш	Manuals				0		0	
DWR ID	DWR_RD0	001_01_s _ 201	3_9					
		Comn	nent Cod	de				
	Inspector Comment							
The LMA h	nas a copy	of the O&M N	/lanual a	vailable at t	the c	office.		

No Photos

\* Location

WS: Water Side

LS: Land Side N/A: Not Applicable

A : Acceptable M : Minimally Acceptable U : Unacceptable

N : Not Inspected/Rated C : Corrected

+ Issue Type

Ma : Maintenance Deficiency
Ob : Design & System Obsolescence

En: Enforcement

## **Levee Inspection Report By Mile - Fall 2018**

## **Reclamation District No. 0001 Union Island**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.14	10/09/2018 10/09/2018	Richard Willoughby

LM Start	0.00	Rating **	U	Issue No.		13		
LM End	1.14	Issue Type +	Ma	Location *	LS			
Category	evee	GPS La	atitud	e/Longitude				
Category			Start		End			
Item	Vegetatio	n		37.8225	80°	37.811714°		
пеш				-121.375545 ° -121.38487				
DWR ID	DWR_RD0	001_01_f _ 201	8_13			·		
		Comn	nent Cod	de				
V2 : Remove the wild growth other than native grasses from the levee slopes.								
	Inspector Comment							



Looking southwest at typical view of landward slope.

LM Start	0.00	Rating **	U	Issue No.		Issue No.		20
LM End	1.14	Issue Type + Ma		Location *		WS		
Category	Earthen L	evee	GPS Latitude/Longitude					
Calegory						End		
Item	Vegetatio	n		37.82258	35 °	37.811714°		
пеш				-121.37553	32 °	-121.384876°		
DWR ID	DWR_RD0	001_01_f _ 201	8_20					

#### Comment Code

V2: Remove the wild growth other than native grasses from the levee slopes.

#### Inspector Comment





Looking east at typical view of waterward slope.

## Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0001 Union Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.14	10/09/2018 10/09/2018	Richard Willoughby

LM Start	0.02	Rating **	М	Issue No.		21	
LM End	0.02	Issue Type +	En	Location *			
Category			GPS Latitude/Longitude				
Calegory				Start		End	
Item	DWR UCI	IP Field Study		37.82243	3°	37.822433°	
пеш				-121.37573	4°	-121.375734°	
DWR ID	22688						

#### Inspector Comment

Comment Code

FS\_ID:52628 DS\_ID:22688 EP\_NO: 6708

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: - Pipe has leaks on WS that may cause erosion to

slope.- 2" electric conduit on WS.- power pole on LS

FIELD\_STRUCT\_DESC: 12-inch coated steel irrigation discharge pipe through the levee, 5 feet below the crown. Slant pump on the waterside (WS) slope. Air valve on the landside (LS) shoulder. Electrical conduit through the levee. Pipe discharges into a distribution box on the LS toe. (Plans to install a new pump and pipe through the levee authorized under Permit No. 6708, 1969 - Cyril S. Lamb Jr.). [Additional

Reference(s): DWR Levee Log, 2005].

FS Date: 5/30/2018

LM Start	0.02	Rating **	М	Issue No.	21 (cont)
LM End	0.02	Issue Type +	En	Location *	



WS view: steel pipe and slant pump on levee slope. Pump on concrete pad.

Photo 2 of 3: UCIP\_FA\_2018\_52628\_36034.jpg



LS view: air relief valve on levee slope and concrete distribution box on levee toe.

## Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0001 Union Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.14	10/09/2018 10/09/2018	Richard Willoughby

LM Start	0.02	Rating **	М	Issue No.		21 (cont)	
LM End	0.02	Issue Type +	En	Location *			
Category			GPS Latitude/Longitude				
Calegory				Start		End	
Item	DWR UCI	IP Field Study		37.82243	33°	37.822433	
пеш				-121.37573	84°	-121.375734	
DWR ID	22688						

#### Inspector Comment

Comment Code

FS\_ID:52628 DS\_ID:22688 EP\_NO: 6708

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: - Pipe has leaks on WS that may cause erosion to

slope.- 2" electric conduit on WS.- power pole on LS

FIELD\_STRUCT\_DESC: 12-inch coated steel irrigation discharge pipe through the levee, 5 feet below the crown. Slant pump on the waterside (WS) slope. Air valve on the landside (LS) shoulder. Electrical conduit through the levee. Pipe discharges into a distribution box on the LS toe. (Plans to install a new pump and pipe through the levee authorized under Permit No. 6708, 1969 - Cyril S. Lamb Jr.). [Additional

Reference(s): DWR Levee Log, 2005].

FS Date: 5/30/2018



WS view: leaking irrigation pipe may cause damage to WS slope.

	LM Start	0.03	Rating ""	M	issue No.		16			
	LM End	0.03	Issue Type +	Ma	Location *	LS				
Category		Earthen Levee			GPS Latitude/Longitude					
					Start		End			
	Item	Trim / Thin Trees			37.82239	90°	37.822390°			
	пеш				-121.37608	84 °	-121.376084°			
	DWR ID	DWR_RD0	001_01_s _ 201	8_16						
	Comment Code									

T1 : Trim trees to at least five feet above ground level.

Inspector Comment

No Photos

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement

## Levee Inspection Report By Mile - Fall 2018

## **Reclamation District No. 0001 Union Island**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.14	10/09/2018 10/09/2018	Richard Willoughby

LM Start	0.17	Rating **	N	Issue No.		12	
LM End	0.17	Issue Type +	Ма	Location *		WS	
Category Earthen Levee				GPS Latitude/Longitude			
Calegory				Start		End	
Item	Trim / Thi	n Trees		37.8213	76°	37.821376°	
пеш				-121.3780	44 °	-121.378044°	
DWR ID DWR_RD0001_01_s _ 2014_12							
		Comn	nent Cod	de			

T5: Tree stumps.

#### Inspector Comment

Remove stump when it becomes rotted to prevent possible seepage path along the roots.



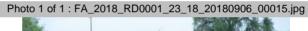
View of the tree stump on the waterside levee slope.

LM Start	0.21	Rating **	М	Issue No.		18		
LM End	0.21	Issue Type +	Ма	Location *	LS			
Category Earthen Levee				GPS Latitude/Longitude				
Calegory			Start		End			
Item	Erosion / I	Bank Caving		37.8208	06°	37.820806°		
пеш				-121.3782	60°	-121.378260°		
DWR ID	DWR_RD0	001_01_s _ 201	7_18					

#### Comment Code

E2: Schedule repair of erosion site prior to the next inspection.

#### Inspector Comment





View of the erosion on the levee slope.

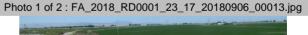
LM Start	0.25	Rating **	U	Issue No.		17
LM End	0.25	Issue Type +	En	Location *	LS	
Category Earthen Levee			GPS Latitude/Longitude			
Calegory				Start		End
Item	Encroach	ments		37.82029	8°	37.820298°
item				-121.37845	7°	-121.378457°
DWR ID	DWR RD0	001 01 s 201	8 17			

RA: Ramp

#### Inspector Comment

Comment Code

Unauthorized ramp on landward slope.





*	Locatio
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LS: Land Side N/A: Not Applicable

WS : Water Side

\*\* Rating

A : Acceptable
M : Minimally Acceptable
U : Unacceptable

N : Not Inspected/Rated

C : Corrected

A/W : Acceptable but Monitor & Maintain

+ Issue Type

Ma : Maintenance Deficiency
Ob : Design & System Obsolescence

En : Enforcement

## Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0001 Union Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.14	10/09/2018 10/09/2018	Richard Willoughby

LM Start	0.25	Rating **	U	Issue No.		17 (cont)	
LM End	0.25	Issue Type +	En	Location *		LS	
Category	Earthen L	evee		GPS La	atitud	e/Longitude	
Calegory				Start		End	
Item	Encroachi	ments		37.8202	98°	37.820298 °	
пеш				-121.378457 °		-121.378457°	
DWR ID	DWR_RD0	001_01_s _ 201	8_17				
		Comn	nent Cod	de			
RA : Ramp	)						
Inspector Comment							
Unauthoriz	Unauthorized ramp on landward slope.						



Looking east at unauthorized ramp on landward slope. (Spring 2018)

LM Start	0.31	Rating **	М	Issue No.	. 11			
LM End	0.33	Issue Type +	Ma	Location *				
Category	Suppleme	ental		GPS Latitude/Longitude				
Start End						End		
2017 Storm Damage				37.82030	00°	37.820200°		
item				-121.37950	00°	-121.379800°		
DWR ID DWR_RD0001_01_f _ 2017_11								
Comment Code								

#### Inspector Comment

Levee Evaluation Comments

Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:496

Site Designation:LMA-402

Repair Type: Erosion Rating:Area of Concern Field Date:8/18/2017

Notes: Start of outside bend. Minor toe erosion has displaced riprap.



LS : Land Side N/A : Not Applicable WS : Water Side

\* Rating

A : Acceptable
M : Minimally Acceptable
U : Unacceptable

N : Not Inspected/Rated

C : Corrected

A/W : Acceptable but Monitor & Maintain

+ Issue Type

Ma : Maintenance Deficiency
Ob : Design & System Obsolescence

r & Maintain En : Enforcement

## **Levee Inspection Report By Mile - Fall 2018**

## Reclamation District No. 0001 Union Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.14	10/09/2018 10/09/2018	Richard Willoughby

LM Start	0.31	Rating **	М	Issue No.	11 (cont)		
LM End	0.33	Issue Type +	Ма	Location *			
Category Supplemental GPS Latitude/Longitude							
Calegory	Start End						
2017 Storm Damage 37.					0°	37.820200°	
пеш	-121.379500 ° -121.379800 °						
DWR ID DWR_RD0001_01_f _ 2017_11							
	Comment Code						

#### Inspector Comment

Levee Evaluation Comments

Description: Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.

Site ID No:496

Site Designation:LMA-402 Repair Type: Erosion Rating:Area of Concern Field Date:8/18/2017

Notes: Start of outside bend. Minor toe erosion has displaced riprap.

LM Start	0.31	Rating **	М	Issue No.	11 (cont)
LM End	0.33	Issue Type +	Ма	Location *	



Photo 3 of 3: LEVAL\_FA\_2018\_496\_4374.jpg



CR : Crown

N/A: Not Applicable LS: Land Side WS: Water Side

A: Acceptable Minimally Acceptable U : Unacceptable

N : Not Inspected/Rated C : Corrected

+ Issue Type

Ma : Maintenance Deficiency
Ob : Design & System Obsolescence En: Enforcement

## **Levee Inspection Report By Mile - Fall 2018**

## Reclamation District No. 0001 Union Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.14	10/09/2018 10/09/2018	Richard Willoughby

LM Start	0.44	Rating **	U	Issue No.		14	
LM End	0.44	Issue Type +	Ma	Location *		LS	
	Earthen L	evee	GPS Latitude/Longitude				
Category				Start		End	
	ontrol		37.8188	98°	37.818898°		
-121.380332 ° -121.380332 °							
DWR ID DWR_RD0001_01_s _ 2016_14							
Item	Animal Co		6_14				

**Comment Code** 

A1: Exterminate rodents and backfill and compact or grout burrows.

Inspector Comment

Active rodent den a size of a coyote or fox.





View of the large rodent hole on the landside levee slope.

LM Start	0.45	Rating **	U	Issue No.		10
LM End	0.45	Issue Type +	Ma	Location * LS		LS
Category	Earthen Levee			GPS Latitude/Longitude		
Calegory				Start		End
Item	Animal Co	ontrol		37.8187	53°	37.818753°
item				-121.3802	49°	-121.380249°
DWR ID	DWR_RD0	001_01_s _ 201	6_10			

#### Comment Code

A3: No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

#### Inspector Comment

Backfill and compact levee slope with acceptable levee fill.

## Photo 1 of 1: FA\_2018\_RD0001\_23\_10\_20180906\_00006.jpg



View of the large rodent hole on the landside levee slope.

LM Start	0.51	Rating **	М	Issue No.		5	
LM End	0.51	Issue Type +	Ma	Location *		LS	
Category	Earthen L	evee		GPS La	titud	e/Longitude	
Calegory				Start		End	
Item	Slope Sta	bility		37.8180	03°	37.818003	0
пеш				-121.3798	45 °	-121.379845	٥
DWR ID	DWR RD0	001 01 f 201	5 5				Т

#### Comment Code

S1: Repair slope instability.

#### Inspector Comment

About a 1 ft. vertical cut is observed at the landside levee toe. Repair the landside levee toe per O&M standards.

# Photo 1 of 1: FA\_2018\_RD0001\_23\_5\_20180906\_00004.jpg



View of the vertical cut at the landside levee toe.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement

## Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0001 Union Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.14	10/09/2018 10/09/2018	Richard Willoughby

LM Start	0.52	Rating **	М	Issue No.	7			
LM End	0.52	Issue Type +	Ма	Location *	LS			
Category	Earthen L	evee	GPS Latitude/Longitude					
Calegory			Start		End			
Item	Erosion / Bank Caving				25°	37.817825 °		
пеш				-121.3798 <sup>-</sup>	11°	-121.379811 °		
DWR ID DWR_RD0001_01_s _ 2016_7								
Comment Code								

E2: Schedule repair of erosion site prior to the next inspection.

Inspector Comment



View of the erosion on the landside levee slope.

LM Start	0.67	Rating **	U	Issue No.		15		
LM End	0.67	Issue Type +	Ma	Location *		LS		
Category Earthen Levee				GPS Latitude/Longitude				
Calegory				Start		End		
Item	Animal Co	ontrol		37.8170	47°	37.817047°		
пеш				-121.3823	42 °	-121.382342°		
DWR ID	DWR_RD0	001_01_f _ 201	6_15					

#### Comment Code

A1: Exterminate rodents and backfill and compact or grout burrows.

#### Inspector Comment

Burrow entrance is about 18 inches by 10 inches.

## Photo 1 of 1 : FA\_2018\_RD0001\_23\_15\_20180906\_00012.jpg



View of the large rodent burrow in the landside levee slope.

LM Start	0.76	Rating **	U	Issue No.		4		
LM End	0.76	Issue Type +	Ma	Location *		LS		
Category	Earthen Levee				GPS Latitude/Longitude			
Calegory				Start		End		
Item	Animal Co	ontrol		37.8158	81°	37.815881	0	
пеш				-121.3827	04°	-121.382704	0	
DWR ID	DWR RD0	001 01 f 201	5 4					

#### Comment Code

A1: Exterminate rodents and backfill and compact or grout burrows.

#### Inspector Comment

Large burrow in the landside levee slope. Possible fox den. Cobwebs are visible in the hole. Fall 2016.

#### Photo 1 of 1: FA\_2018\_RD0001\_23\_4\_20180906\_00003.jpg



View of a large rodent hole on the landside levee slope.

\*Location
LS: Land Side N/A: Not Applicable
WS: Water Side
CR: Crown

\*\* Rating
A: Acceptable
N: Not Inspected/Rated
M: Minimally Acceptable
C: Corrected
U: Unacceptable
AW: Acceptable but Monitor & Maintain

\* Issue Type
Ma: Maintenance Deficiency
Ob: Design & System Obsolescence
En: Enforcement

## Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0001 Union Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.14	10/09/2018 10/09/2018	Richard Willoughby

LM Start	0.85	Rating **	М	Issue No.		22
LM End	0.85	Issue Type +	En	Location *		
Category			GPS Latitude/Longitude			
Calegory				Start		End
Item	DWR UCI	P Field Study		37.81460	1 °	37.814601 °
пеш				-121.38250	9°	-121.382509°
DWR ID	22691					

## Inspector Comment

Comment Code

FS\_ID:41600 DS\_ID:22691 EP\_NO: N/A

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: - 2" electric conduit on WS- pipe exposed on both sides.- power pole on LS. - erosion on WS hinge near walkway. FIELD\_STRUCT\_DESC: 14-inch irrigation discharge pipe of an unknown material and a 2-inch electrical conduit of an unknown material through the levee, 6 feet below the crown. Pump on a pile structure in the stream. Air valve on the landside (LS) shoulder. 30-inch concrete standpipe on the LS toe. [Additional Reference(s): DWR Levee Log, 2005. USACE San Joaquin O&M Manual 8, 1968, (HLM 0.86)].

FS Date: 9/12/2013

LM Start	0.85	Rating **	М	Issue No.	22 (cont)
LM End	0.85	Issue Type +	En	Location *	



WS view: exposed pipe, walkway, and pump on pile structure. Soil erosion on levee hinge near walkway.

Photo 2 of 3: UCIP\_FA\_2018\_41600\_36003.jpg



WS view: exposed pipe, walkway, and electric conduit under walkway.

Rock revetment on lower levee slope.

## Levee Inspection Report By Mile - Fall 2018

## Reclamation District No. 0001 Union Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.14	10/09/2018 10/09/2018	Richard Willoughby

LM Start	0.85	Rating **	М	Issue No.		22 (cont)	
LM End	0.85	Issue Type +	En	Location *			
Category				GPS Latitude/Longitude			
Category				Start		End	
Item	DWR UCI	IP Field Study		37.81460	1°	37.814601	0
пеш				-121.38250	9°	-121.382509	0
DWR ID	22691						

#### Inspector Comment

Comment Code

FS\_ID:41600 DS\_ID:22691 EP\_NO: N/A

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: - 2" electric conduit on WS- pipe exposed on both sides.- power pole on LS. - erosion on WS hinge near walkway. FIELD\_STRUCT\_DESC: 14-inch irrigation discharge pipe of an unknown material and a 2-inch electrical conduit of an unknown material through the levee, 6 feet below the crown. Pump on a pile structure in the stream. Air valve on the landside (LS) shoulder. 30-inch concrete standpipe on the LS toe. [Additional Reference(s): DWR Levee Log, 2005. USACE San Joaquin O&M Manual 8, 1968, (HLM 0.86)].

FS Date: 9/12/2013



LS view: exposed steel pipe on levee slope and concrete standpipe on levee toe.

LM Start	1.08	Rating **	М	Issue No.		3
LM End	1.08	Issue Type +	Ма	Location *		LS
Category	Earthen L	evee		GPS La	titud	le/Longitude
Calegory				Start		End
Item	Slope Sta	bility		37.8120	23°	37.812023°
item				-121.3839	61 °	-121.383961 °
DWR ID	DWR_RD0	001_01_s _ 201	6_3			

S3: Repair the levee slope damaged by vehicle traffic and prevent access where possible.

#### Inspector Comment

Comment Code

Repair slope damaged by vehicle by placing and compacting acceptable levee material.

#### Photo 1 of 2: FA\_2018\_RD0001\_23\_3\_20180906\_00001.jpg



View of the landside slope damaged by farm equipment.

## Levee Inspection Report By Mile - Fall 2018

## **Reclamation District No. 0001 Union Island**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.14	10/09/2018 10/09/2018	Richard Willoughby

LM Start	1.08	Rating **	М	Issue No.		3 (cont)
LM End	1.08	Issue Type +	Ма	Location *		LS
Earthen Levee			GPS Latitude/Longitude			
Category				Start		End
Item	Slope Stability			37.81202	23 °	37.812023 °
пеш			-121.3839		61 °	-121.383961 °
DWR ID DWR_RD0001_01_s _ 2016_3						

#### Comment Code

S3 : Repair the levee slope damaged by vehicle traffic and prevent access where possible.

#### Inspector Comment

Repair slope damaged by vehicle by placing and compacting acceptable levee material.

# Photo 2 of 2 : FA\_2018\_RD0001\_23\_3\_20180906\_00002.jpg



View of the ruts on the levee slope overgrown with vegetation.

LM Start	1.13	Rating **	М	Issue No.		19	
LM End	1.13	Issue Type +	Ма	Location *		LS	
Earthen Levee				GPS Latitude/Longitude			
Category				Start		End	
Item	Trim / Thi	n Trees		37.8117	14°	37.811714°	
пеш				-121.3848	76°	-121.384876°	
DWR ID	DWR_RD0	001_01_s _ 201	8_19				

#### Comment Code

T1 : Trim trees to at least five feet above ground level.

#### Inspector Comment



Looking west at untrimmed tree at landward toe. (Spring 2018)